

ADDRESS

DELIVERED BEFORE THE

PENN'A STATE AGRICULTURAL SOCIETY,

AT HARRISBURG,

BY THE

HON. ANDREW STEVENSON,

(OF VIRGINIA,)

October 31, 1851.

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1852.

HARRISBURG, October 31, 1851.

To THE HON. ANDREW STEVENSON:

*Dear Sir:—*The edifying and instructive address which you so kindly made before our Society, we desire should be widely disseminated amongst the people of Pennsylvania. Will you add to the great favor done to us, your permission that it be published?

I have the honor to be,

Most respectfully,

Your obedient servant,

FREDERICK WATTS,

President of the Penn'a State Agricultural Society.

HARRISBURG, October 31, 1851.

*Dear Sir:—*I have the honor to acknowledge the receipt of your letter of to-day, asking permission to have the address I delivered yesterday before your Society printed for circulation throughout Pennsylvania. I hasten to place a copy of the address in your possession, to be used as you may deem best. I beg you to believe that I feel the honor you do me by this application, and can only express a hope that its circulation in the manner proposed, may contribute to advance the views of the Society and the several interests of agriculture of your noble State.

I have the honor to be,

Very truly, dear sir,

Your obedient servant,

ANDREW STEVENSON.

To FREDERICK WATTS, Esq.,

President of the Penn'a State Agricultural Society.

FIRST ANNUAL ADDRESS.

. President and Gentlemen of the Agricultural Society :

Whilst I am gratefully sensible of the distinguished honor which you have conferred in selecting me as your organ upon this occasion, I have not the vanity to suppose that I am indebted for it, by any means, so much to any personal merits of my own as to the accidental circumstance of having been placed, some short time ago, the head of the Agricultural Society of my own State—an appointment, certainly, of distinction and honor, but one which, on my part, was as unsought and unexpected as I feel it to have been unmerited. In accepting the invitation, therefore, to deliver the annual address of your society, I beg you to do me the justice to believe that I am as influenced much more by a desire to gratify the wishes of my agricultural friends, and visit this portion of your noble State, than from any impression of peculiar fitness to discharge the duty which your kindness has imposed upon me. And whilst I am willing to admit that this duty is one in harmony with all my feelings and opinions, I must yet say that I should have been more gratified if it could have fallen upon some other individual, more competent and worthy than I am to do justice to the great cause in which we are engaged, and fulfil the just expectations of your society. But having yielded my assent, and put my hand to the plough, I determined not to recede, and I am here to redeem my pledge, in the manner I deem best and most acceptable to you. Allow me, however, in advance, to say, that my situation is one of a somewhat novel and embarrassing character. Personally unknown, with few exceptions, to the vast crowd that surrounds me, might I not say that I stand here to-day in the midst of it an entire stranger? But I will not, because I ought not to say it—for then was it that a Virginian in Pennsylvania, or a Pennsylvanian in Virginia, was ever regarded as a stranger in a strange land? For more than three quarters of a century the States of Pennsylvania and Virginia (amongst the oldest and most distinguished of "the good old thirteen") have stood by each other, and been united, not only in law, but in hearts and affections—united by common benefits, supported by the accomplishment of equal and mutual rights—the only union that can best secure liberty and happiness. In peace as well as in war—in every thing connected with the interests, prosperity, and happiness of a common country, Pennsylvania and Virginia have been one and indivisible. And who would separate them? Who there that would wish to see this sacred bond of sympathy and affection broken—solved—destroyed? If there be one such, let the spirits of the mighty dead, by whose blood and treasure this Union was cemented, rise up and rebuke him! I tell, then, Mr. President, that in coming here to mingle in your counsels, to interchange opinions and sentiments with your distinguished and enlightened agriculturists, to aid, if I can, in the glorious cause which has brought you together, and to pay the tribute of my affectionate homage, as a Virginian, to old and patriotic Pennsylvania, I am, in truth, no stranger in her land, but feel that I am entitled to all the hundred rights of brotherhood and hospitality; and liberally have they been showered on me! Indeed, since I entered the limits of your State, my reception has been one of continued kindness and hospitality, the memory of which I shall carry back with me to my home, and cherish to the latest moment of my life.

A celebrated moralist has said, that the human heart was not large enough to cherish at the same time two sentiments of a lively nature ! He probably spoke the truth ; for, surrounded by scenes for the last three days which might well have justified various emotions of the most animated and delightful nature, one alone seems to have occupied my mind and heart--namely, that of deep and heartfelt gratitude. And here let me congratulate the society, and every friend of agriculture, upon the character of their great exhibition, and the auspicious circumstances under which it has taken place ; and whilst it may be true that you have not, for the first time, Mr. President, made a display equal to the many imposing and praise-worthy spectacles of a similar character which, for some years past, have distinguished many of your sister States of the north and east, and Maryland, in the south (and few, if any, a in advance of her), you have had enough to afford great encouragement, and the promise of better things hereafter. Your exhibition, as a first effort, has been markable, and does great honor to your society and the State at large. Indeed, we have witnessed such an assemblage of enlightened and patriotic men, brought together from all parts of your own State, as well as from those adjoining, for purposes so laudable and patriotic, acting spontaneously and harmoniously together, without collision of antagonist interests, and apart from all political and party considerations, was delightful and refreshing, as well to the feelings as the intellect. Mr. President, in times like these, after such scenes of excitement as those into which Pennsylvania has lately been thrown, and especially on such occasions as this, it is good to inhale an atmosphere neither agitated by the din of controversy nor tainted with party polemics—and when, moreover, we consider the objects which brought together such an assembly, the place of meeting (the metropolis of this old and renowned Commonwealth), a State not less famed for its love of liberty and order than for its general intelligence, for its devotion to literature and science, and, above all, for that sober, calm, reflecting sense, which, without abating the energies of popular feeling, directs it in its legitimate course, by peaceable and patriotic means to the attainment of safe and legitimate ends, it cannot fail to make a deep and lasting impression upon the hearts of all present, and give token of the successful advancement of the great objects for which your society has been formed. What American could witness the scenes which have transpired here within the last three days, and not feel deeply impressed and elevated ? Whose bosom did not throb with pleasure and exultation ? What Pennsylvanian did not feel proud in being the citizen of such a State ? I wish most sincerely, that not only the good people of your own State, Mr. President, but every farmer and planter of America, could have been here, and witnessed your proceedings, hallowed by such large and liberal and patriotic views as those that animated the bosoms of the thousands that were present and participated in your festivities ! Then, indeed, would there come from every hill-top and valley of this vast confederacy, a response not unlike the Macedonian call of old, inspiring the timid with courage, and stirring up the spirits of the bold friends of agriculture !

It is not my purpose, Mr. President, upon this occasion, to enter at all into the minute details of practical farming, or the manner of cultivating the various and diversified soils of a State like Pennsylvania. This would be a field of endless contention, and as unsuitable to an address of the character I am about to make, as to the objects of your society. Into such a field I shall not enter. If, therefore, the value of an agricultural address is to be tested alone in proportion as it may convey information applicable to the mere details of every-day farming, I shall fail in the effort I am about to make on this occasion. Indeed, without personal knowledge or acquaintance with the various soils and lands of a State like yours, or of the prevailing mode of cultivation, of which I am ignorant, how could it be expected, or desired, that I should occupy the attention of such an audience, composed of so many enlightened and practical farmers, by entering into the details and routine of ordinary farming operations ? These more properly belong to the various auxiliary societies of your State, to whom they can most safely be confided. My purpose will be one who is different, and of a more enlarged and general character. My purpose, in the first

ace, will be to take a brief examination of agriculture, in connection with the other great branches of national industry, and maintain its importance and pre-eminence a national point of view. Secondly, I shall attempt to show that the prosperity and existence of the old Atlantic States, and especially Pennsylvania, Delaware, Maryland, and Virginia, must hereafter mainly depend upon restoring and increasing the fertility of their lands, and the amount of their productions, unless they are prepared to abandon them. And thirdly, that the only means of accomplishing this, will be by a system of improved and scientific cultivation; by placing the agriculture of the country upon its true basis, and raising the agricultural classes to a higher and more elevated standard! If I can succeed in doing this, I shall have obtained all I desired in this address, and all that the society could reasonably expect.

Of the importance and value of agriculture, few, I presume, are now disposed to doubt, whatever their opinions may be as to its relative merits compared with commerce and manufactures! That, whether we consider agriculture as an art, or in its effects upon the moral, social, or political character of our government and people, in America, at least, it must be regarded as forming the foundation upon which our prosperity and free institutions must ever repose! In proof of this, it may be necessary to contrast agriculture with the other branches of national industry, here and elsewhere, as sources of national wealth and greatness, and follow it up with a summary review of the agricultural condition and capacity of most of the Atlantic States, and the means they possess for high and improved farming. This, however, I am aware, is a subject upon which there may be, and are, various opinions. Political writers, in all ages, have differed more or less with respect to the true sources of the wealth of nations, some ascribing it to agriculture, some to commerce and manufactures, and others to labor and capital employed in all three. But yet all admit, that whilst manufactures improve, commerce gives value, and labor and capital stimulate, it is agriculture alone that originates! Conflicting, however, as these opinions may have been, or still are, with respect to these hypotheses, all political economists concur in opinion that whatever may be the value imparted by the labor and ingenuity of man, the earth is the parent and fountain of them all; that agriculture is the art by which these productions are multiplied, so as to meet the wants of civilized man, and which are common to all—to the agriculturist, the manufacturer, and seaman, as well as to the artist, the statesman, and man of letters, and as all equally derive their origin from the cultivation of the earth, all must be equally dependent upon it for sustenance. Regarding it, then, as the basis of all other arts, it justly claims pre-eminence over all others; and such is its connection with all the comforts of the human race, that it may justly be said, in a political point of view, that agriculture is the only firm and stable foundation of national greatness!

But, Mr. President, we all know that nations, as well as individuals, are too often governed by external appearances and first impressions, until philosophy and science, by teaching men to think, enable them to trace effects to their true causes, and assign to them their relative importance. Hence it is that *commerce*, from the display it makes before the world, has often been considered the first and greatest agent in the production of national wealth; and manufactures next; whilst modest and peaceful agriculture, hidden in the privacy of the country, is neglected or forgotten; or remembered only to be underrated, and, might I not say, too often despised! And what though it does perform its labors in retirement, and out of the view of the busy multitude? What though the arts throng the cities and public haunts of men? What though commerce hoists its gaudy flag, spreads its swelling sails, and traverses the globe? These belong not to the peaceful calling of the husbandman; and, for me, I rejoice that they do not. And yet, is saying this, do I mean to speak disparagingly of commerce? Far, very far from it. I know that civilization and liberty have ever been identified with the history of commerce. It is not only the patron of art and science, but everywhere the friend of liberty and religious toleration. No man admires more the enterprize and commercial spirit of our country than I do, or can be more willing to do it honor. Its spirit, moreover, is peaceful, and that gives it additional claims to favor. It is true, that when we cast our eyes back a century

ago, when agriculture had fallen from its high estate, we find the cultivation of the soil formed the occupation, almost exclusively, of the humbler orders of the people without knowledge or capital to enable them to improve it. Nor was it until political economy assumed the form of a science, and caused rulers and statesmen to be more sensible of the value and importance of an improved state of agriculture, than it attracted more attention from the better informed and wealthier classes of society and exciting the energies of the learned and scientific attracted that consideration which its importance so justly merited. This great work first commenced in Europe and more particularly in England and Scotland, and nothing had such a powerful effect in attracting to it public patronage and support as practical science and the establishment of agricultural societies and associations. These were the levers that first put the ball in motion, and placed agriculture, as an art, upon its true and ancient basis.

Then it was that patriotic men of rank, fortune, and talents gave it their attention and, by personal example, drew to themselves the regard and support of that class of people who had the means of conducting improvements upon the most enlarged and liberal scale, and the Board of British Agriculture was established. This was principally brought about by the labors of a few distinguished individuals, at whose head was Sir John Sinclair, its able and enlightened projector, and the friend of Washington. And then commenced a new era in agriculture, not only in England and Scotland, but throughout a great part of Europe. This board, whilst it served as a centre of information to agriculturists, performed the same office to the British Government, and pointed out the means of prosperity and safety to the nation. And here allow me to say, that it was under the combined influence of this Board, and the numerous societies which were afterwards established throughout England and Scotland, that agriculture became inspired with a new spirit and activity. Men of science, and political philosophers, began to examine and analyze with deeper scrutiny the source of Britain's power; and then it was ascertained, that wide-spread as her commerce and extended as her manufactures were, it was to her skillful agriculture, more than to both the other two great interests, that England was indebted for the support of her colossal system of public credit. A system that enabled her to breast the flood of Europe's rage, and roll back its waves upon the tyrant who had disturbed the peace, and at one time threatened the liberties of the world!

For this we have, *first*, the statistical results of the taxes levied by Great Britain during her war with France; and, *secondly*, the authority of Napoleon himself and Sir John Sinclair. Upon referring to the statistics of England, we find that the proceeds of the tax alone imposed upon the proprietors and occupiers of land amounted to six and a half millions of pounds; whilst the whole product from all other classes (including merchants, manufacturers, office-holders, and professional men, &c.), was only between three and four millions; less than one-half the amount received from the agricultural classes, whilst the number of proprietors and occupiers of land, who came within the operation of the income tax, was three times as large as that of all other classes. And here I will take occasion to refer to the errors into which some of the public writers of Europe, and more particularly France, seem to have fallen as to the true source of Great Britain's wealth. They seem to take it for granted that the principal part of her industry is devoted to the manufacturing of goods for foreign markets. This is not so.

From the late official returns of her Board of Trade, it appears that the total value of exports of principal articles of British and Irish manufacturers, for the year 1849, was only fifty-eight millions of pounds, including the value of the raw material which, in relation to many important articles of British export, was of foreign production. Now, this sum is but little less than one-eighth of the whole productive wealth of the United Kingdom of Great Britain and Ireland, of which three hundred millions, according to one of her ablest statists, is annually created from the cultivation of the soil. Here, then, is the startling fact that nearly fifteen hundred millions of dollars is wrung from a soil possessing inferior advantages to those of your own State, Mr. President, and especially those of New York and Ohio, and, I might add,

Virginia. Well then might it be said that in England's darkest hour, when invasion threatened her coast, and shock gathering perils appalled the merchants and fund holders of the kingdom, where but among the yeomanry of the land were found the stout hearts and strong arms that presented an impassible barrier to her foes?

On this subject Sir John Sinclair, in one of his annual address to the conveners of Scotland, which I hold in my hand, [as late as 1826] says "I have long been endeavoring, in concurrence with a number of respectable friends, to promote the interests and prosperity of agriculture. But, unless some great exertions are made, all our past efforts will have been in vain; I augur, however, better things for the future. It has proved during the late war with France that national prosperity, founded on the basis of agriculture, was solid and efficient; 'the crusades of agriculture saved England from the yoke of Napoleon.' And let us hear what he thought of this matter. I have seen it stated in some of the memoirs of his life that he was in the habit of reading the reports of the British Boards of Agriculture with great attention, and particularly those of Scotland, in relation to which he is reported on one occasion to have said, 'That the Scotch agriculturists had made their country, which was one of the most sterile, one of the most fertile in all Europe, and that they were the right arm of the British Government, and but for their exertions he should have been enabled to overthrow England.'"

And yet, Great Britain did little or nothing for her agriculture and rural economy until within the last century; and in fact never brought this great branch of national industry and wealth to any perfection until after the establishment of her British Board of Agriculture, and those numerous associations scattered throughout the whole kingdom. And here I cannot do better than refer to the opinion of General Washington, as to the importance and value of this board and of an agricultural education. When the first board of agriculture was established, Sir John Sinclair forwarded to General Washington the proceedings of the board with a diploma constituting him an honorary member. In a letter of thanks of the 10th of July, 1795, General Washington says: "From the first intimation which you were pleased to give me of this institution, I conceived the most favorable ideas of its utility, and the more I have seen and reflected on the plan since, the more convinced I am of its importance in a national point of view, not only to your own country, but to all others which are not too much attached to old and bad habits to forsake them, and to new countries which are just beginning to form systems for the improvement of their husbandry."

In another letter he says: "I have read with pleasure and approbation, the work you patronise so much to the honor and the utility of the public; such a general voice of the agriculture of Great Britain cannot fail to be beneficial to the agricultural interests of your country and to those of every other where they are read, and must entitle you to their warmest thanks for having set such a plan on foot. I am much pleased with it myself, and pray you to have the goodness to direct your booksellers to continue to forward them to me. I know of no pursuit in which more real and important service can be rendered to any country than by improving its agriculture, its breed of useful animals, and other branches of husbandry—nor can I conceive any plan more conducive to this end than the one you have introduced, bringing to view the actual state of those in all parts of the kingdom, by which good and bad habits are exhibited in a manner too plain to be misconceived, for the accounts given to the Board of Agriculture appear in general to be drawn in a masterly manner, so as to answer the expectations formed in the plan which formed them, affording a fund of information useful in political economy—serviceable in all countries." And again: "It will be some time, I fear, before an agricultural society will be established in this country. We must walk, as other countries have done, before we run. Similar societies must prepare the way for greater, but with the lights before us, I hope we shall not be so slow in maturation as older nations have been. An attempt, as you will perceive by the enclosed outlines of a plan, is making to establish a State society in Pennsylvania for agricultural improvements: If it succeeds, it will be a step in the ladder; at present it is too much in

embryo to decide on the result." Well, Mr. President, your State has at last succeeded in being able to run, after walking half a century. It was just fifty-seven years since this letter was written, announcing the attempt to form a State agricultural society, before it was accomplished. Rather a longer walk, I dare to say, than General Washington had imagined. But it has come at last, and I hope with healing on its wings, to the honor of your State, and her patriotic sons. Now here is authority, that even the most inveterate of our unscientific friends will be disposed to respect. And allow me in connection with those letters of General Washington, to express a single thought.

What a singular and remarkable occurrence, that a man in such an exalted situation (and that man Washington), with all the cares and responsibilities of the chief magistracy of such a nation upon him, should have had the time and inclination to write with his own hand so many and such long letters, to a total stranger, in a foreign land, upon the value, and importance, and delights of rural agriculture. And then, again, how much more wonderful is it, that a man like Napoleon Bonaparte, at the moment he was planning his battles and marshalling his forces to trample down the liberties of the world—indeed, amid the din of battle and the shouts of victorious armies—should have had leisure to be pouring over the statistical and agricultural reports of his enemy. What a proud tribute to the agricultural advancement, both of England and America! And now coming back to the subject of these early efforts to revive agriculture, may it not with truth be said that it was to these associations, and to an increasing taste for scientific farming, that the agriculture of all Europe was indebted for its vast improvements and success. One of these associations, I allude to the Royal Agricultural Society of England, formed only ten or twelve years ago, contains now more than ten thousand members, embracing every class, from the throne to the cottage, with ample funds to carry out all its schemes for improvement. And it is these associations and societies that have contributed so largely to make England, so far as agriculture is concerned, the garden of Europe; and I venture to say that there now exists within the British dominions a greater fund of solid ability and scientific information, and a larger variety of active and efficient capital, than in any other country upon earth of the same extent and population.

And to what, Mr. President, are we to ascribe all this; not to soil and climate certainly, because there are few countries with a less propitious climate, less genial sun, or natural richness of soil, than the English can boast. No! no! It is to be *found* in the fact that she surpasses all other countries in the universe in the art of cultivating land; in judicious cropping; in her systems of enclosing, draining, manuring; and in the breeding of domestic animals, and especially sheep and cattle. And such are the resources growing out of British industry, that with a population one-third less than that of France, she exceeds her from eight hundred to a thousand millions sterling capital employed in husbandry. Is it not idle, then, to suppose, that any thing else can mainly have contributed to this, but agricultural knowledge and education, practical science, with all its discoveries, and the establishment of societies throughout the whole kingdom, and the efforts made to rouse up the nation to regard agriculture in its proper and true light.

It was because husbandry became the road to wealth and power, and respectability. Hear what has been recently said on this subject, at one of the annual meetings of the Royal Agricultural Society: "The society have the satisfaction, at the close of the year, of congratulating its members on the steady advance of the society in the accomplishment of its prospects and resources, amongst which it cannot fail to allude to the establishment of the numerous local societies for the discussion of agricultural subjects, which have mainly originated from the attention which the exertions of this society have attracted to the improvement of agriculture, and which have led to such great and beneficial results; and they recommend that a chemical analysis of the plants grown in different localities and soils throughout the kingdom shall be made at the expenses of the society, and funds were voted for that purpose." And what, Mr. President, would be the answer of our friends, the

unscientifics" and "*good enoughs*," to this array of evidence in favor of agricultural education, and science. That I suppose which Cincinnatus is reported to have ven centuries ago—"We prefer the good old way." And if such be the relative importance of agriculture in Great Britain, whose commerce and manufactures are extended, how infinitely more important must it be to the agricultural classes in such a country as ours, whose territory extends now from the Atlantic to the Pacific. Indeed, without running into the errors of the economists, or adopting their theories, here on earth can the paramount importance of this pursuit be so safely asserted in the United States? Here the cultivation of the soil has advantages over every other portion of the globe; because so intimately connected with our national character and our free institutions; acting so powerfully upon the constitutions of our people! And if it be true, as it has been supposed, that in regions like Switzerland and America, whose mountains lift themselves to such vast elevations above the sea, the torch of liberty burns with a purer and brighter lustre, and the hardy spirits of freedom, and independence of thought and action more peculiarly belong, then have we advantages which no other nation on earth can boast.

And then if we look to your own State, and more especially to New York and Maryland, and to the whole of New England, we shall see the effects of agricultural knowledge and practical science, strongly exemplified, though, as I shall in another part of this address attempt to show that high as their improvements may be, they are yet far, very far below the standard they ought to have reached, with the means and facilities they have at their command. What then, shall the conjectural scruples of the prophetic calculators in our own country avail against this mass of practical evidence which three-fourths of a century have accumulated? Why, if the only effect of these societies and associations was to bring together the cultivators of the soil in various portions of the Union; awakening their attention to what had been done, and what was doing elsewhere; leading them to an interchange of views and feelings, and animating them to enterprise and emulation, who is there that doubts but that these societies rested upon an unquestionable basis of utility? And why do these individuals who set themselves up against all scientific and book-learning, as they call it, imagine that nothing new is to be learned in the arts of life, and especially in relation to the cultivation of the soil?—That agriculture has reached its goal? Do they know that there is no obstacle to the march of mind and improvement, so insurmountable as the conceit that we are either wise or good enough? And that it is this self-gratulation that so long closed the eyes of enquirers, and shut out the light of knowledge as to the cultivation of the earth? Do they know, or have they forgotten that it was many thousand years after the world began, before it was known how to make a plow? That Cincinnatus (who is held up as their great pattern for husbanding), and who was satisfied with the "good old way," turned up his land with the limb of a tree for his plow, and a knot to it for a coulter and share; and when the patriarchs were grinding their corn with pestles and stones? And bye the bye, it may be within the recollection of some who are now present, when this species of grinding was resorted to in portions of the western country—possibly in parts of Pennsylvania, which are now filled with steam mills, and machinery, of the most costly kind? Why, how long has it been since the use of the potato was found out and used? Need I remind you, Mr. President, or this assembly, that it was the ferocious soldier and bigoted fanatic of Spain, who gave to the world this treasure, by transferring the wild potato from the waters of La Platte, and the mountains of Chili to Europe; and in doing so saved a large portion of the Old World from the desolations of famine? And how strong is the goodness of God, manifested in every way? Yes—these same hands which destroyed human life without measure or mercy, gave to countless millions the means of living; and moreover, by the introduction of the bark of Peru into medicine, removed from the earth a desolating scourge which destroyed more nations than the Plagues of Egypt! It has been well said, that this is a period in which the fields of science and useful knowledge are largely and successfully employed in a country where the means of correct information are as free and extensive as the air we breathe. A spirit of inquiry

has gone abroad in every department of science, and what may perhaps be justly claimed as distinguishing the present age above former times, is the fact, that the lights of science have been pressed into the aid of all the useful arts, and no longer waste their strength in looking through metaphysical disquisitions, for the discovery of truths that have no practical use. Learning, thank God, is no longer subject to monopoly, but is actively engaged in the service of the arts ; and what has heretofore been deemed the province of the schools, is now the property of *all*, for the benefit of *all*! And agriculture, that glorious art, which was so long degraded from its rightful place in the scale of human occupation, is now asserting its just rank ; and the name of Farmer has ceased to carry to the mind the idea of inferiority or dependence. It is no longer a plodding art, but has become a science, in which all the powers of the human mind have been called into action, and the sources of mechanical power put in requisition to aid its progress and improvement.

Chemistry, Botany, Geology, Mineralogy, and the principles of mechanical power, are no longer the source of useless experiment to the philosopher and scholar, but have been pressed into the service of agriculture and manufactures, and every branch of practical science, rendered subservient to satisfy our wants and the gratification of a refined taste. We live indeed in an eventful period ! An age of agitation and progress—of bold and lofty intellect ! The whole world seems to be undergoing change ! Events, pregnant with instruction and warning, and of a startling character, succeed each other with a rapidity that excites our special wonder ! There has been no period since the commencement of the world, in which so many important discoveries have been made as within the last half century. I will take a few of the most striking instances, for which I am indebted to one of your own distinguished Journalists. Fifty years ago, there was not a steamboat in existence, and its application to machinery unknown ; the first steamboat was launched in 1807 or 8—and now how many thousands are traversing the waters of America ? In 1800, there was not a single railroad in the world ! the fire horse will travel in as many hours now, a distance which some years ago, it took as many days and weeks to accomplish. A few years ago, it took weeks to communicate between the Atlantic cities and New Orleans, which is now accomplished in a few minutes by the Electric Telegraph !

Electrotyping was but lately discovered, and a press, capable of printing 10,000 copies (I believe it has gone up to 20,000) in an hour.

Gas light was unknown fifty years ago, and now every city and town is lighted with it, and we hear of a still greater discovery, by which light, heat, and motive power can be produced from water, with little cost. Daguerreotype and Phototype and a hundred other types with all their beautiful inventions are the work of the last ten years ; and Gun Cotton and Chloroform, are of still more recent discovery. And Astronomy has come in and added a number of new Planets to the Solar System.

And yet, Mr. President, depend upon it, that with all our knowledge and improvements of the age, both scientific and practical, there are even better ways than those now in use, in relation to our field industry, and the operation of mechanics. Who imagines that in this immense repository in which we live, the whole of its contents have been exhausted, or a major part of them. Why the very discoveries in art and science show that even now in this age of fancied maturity, knowledge and science are yet in their infancy. The land that now teems with such splendid designs and enterprises for the benefit of man, has scarcely yet seen the dawn of that improvement in art and science which awaits it. Who will prescribe to knowledge boundaries or restrain the insatiable curiosity of man ? Who attempt to set limits to the march of human improvement ?

Has the spirit of philosophical enterprise yet exhausted its discoveries in common or atmospheric electricity ; in explosive or physical forces—in atmospheric pressure or electromotors, with all their subtlety and power, their excitability, rapidity, and intensity of action ?

Does any one imagine that the secrets of the elements are yet exhausted? That the bowels of the earth may not yet teem with unknown treasures? That fire and water are not yet to be applied to purposes not less wonderful than that of making the very billows of the ocean conquer themselves?

Is it wonderful to suppose that plants which are now trodden heedlessly under foot may not become important objects of commerce, and form new sources of national wealth? That undiscovered planets may not now be tracing their silent and eternal course in the heavens, whose rays ere long may burst upon our sight and renew the vigils of the astronomer?

Let the bold and rapid course of knowledge and improvement within the last half century answer these interrogatives.

And now, Mr. President, for the application of what has been said to your own State, which I venture to say would derive greater benefits from the lights of practical science, the establishment of agricultural societies, and the diffusion of correct information as to the best mode of cultivating the earth, than any other State in the confederacy, every thing considered. Mark that! For who is there that now expects, with all the energy and industry of man, that the agriculture of any of the old States, and especially Pennsylvania and Virginia, can ever again reach a high state of improvement, without the aid of agricultural knowledge, and the benefits of modern science, to say nothing of political influence and power? Why sir, as well might we expect to reap without sowing, or that the plants that are reared for human sustenance, would yield their fruits without human labor, as that the theory or practice of agriculture can be brought to any perfection, or be made to approximate towards it in any very profitable degree, unless those who are engaged in it can be induced to act more in a body and more in concert, in regard to their great and best interests. And here suffer me to glance for a moment to the condition of Pennsylvania, and the means she possesses for the highest state of improvement, as well in relation to her agriculture, as to other sources of national wealth; and to see to what extent she is obnoxious to the charge of unscientific and unproductive husbandry. What she has done for agriculture, and what she has failed to do. And with all her improvements, and they have certainly been far superior to most of her sister States, and do her honor, who can look through her wide domain and to her vast resources, and not be struck with the fact that her agricultural condition is still far, very far below that point of elevation, which it ought to hold in the scale of high farming—and whilst it will be readily admitted that in many portions of the State an improving and flourishing system of cultivation prevails, that has restored in a high degree the productiveness of large portions of her land—yet is it not equally true that these hold but a small proportion to the entire State? and what is still more surprising is, that where deterioration prevails it is in those parts of the State where the choicest advantages for successful improvement have been most bountifully showered by a beneficent Providence. I shall not particularize lest it might be thought invidious, and comparisons are always odious? But may I not ask, and I do it in a spirit of perfect kindness, whether there is one land-holder or farmer in your State, who is not satisfied that by a different and more improved system of cultivation than that which now exists, his lands would not only be more productive, and his labors more successful, but that the value of his property would be enhanced in a much higher degree. Nor would it, I hope, be considered any disparagement of the farmers of Pennsylvania, if I were to hazard the conjecture that there is now about many, nay every farming establishment throughout the State, even the best and most improved, some defect, some mismanagement, for the want of skill and attention, over which the eye of the owner has wandered a thousand times without discovering, or, if discovered, without either amendment or change—and if we extend the examination to the tillage, draining, enclosures, farm houses, meadows, and various kinds of stock, I dare vouch, enough would be found to occupy the powers, be they what they may, of the most industrious and skillful agriculturist in the State! Why, sir, have you not still amongst you a goodly number of that class of cultivators who may be denominated the unscientific, and belonging to Miss Edgeworth's

celebrated family of the "good enoughs," who are so infatuated as to sit down with folded arms and contented minds, without ever spending a thought or moving a finger towards the modern improvement of the first and best of human occupations, except, indeed, in what they regard as the "good old way." Indeed, have you not men of intelligence and respectability, engaged in agriculture professionally, who still imagine that agriculture is all sufficient to take care of itself, single handed and without concert or co-operation amongst its followers, and that the single and unaided powers of each individual who cultivates the soil can bring it to at least a reasonable state of perfection? And then, again, we have another class of persons, quite numerous, who, I regret to say, unite in this war against agriculture.

Why, Mr. President, every day presents the example of men of the highest mental endowment; men whose talents and knowledge would render them capable of enlightening by their writings, and charming by their eloquence, who not only do nothing in aid of this great constitutional bulwark of defence, but who ridicule and reproach those who are attempting to rouse up the nation and the friends of agriculture, to the dangers that threaten them. And yet, how many of these men do we see devoting every faculty of their minds, and every hour of their lives, to the allurements of what they regard as the dignities and honors of life! sacrificing the good of their country, and their own substantial happiness, in pursuit of shadows, or what may be regarded as worldly enjoyments. And this, I feel no hesitation in saying, is another and not the least of the evils to which improved agriculture is doomed in our country, and where one is sometimes almost disposed to think that if a new commandment had been given by God, to hate the earth, it could not have been better fulfilled than in some of these old States of our Union—And then comes the danger of these obstacles becoming more insuperable as we live on, and our passions take a wider reach. And although we know from experience that the deeper the bed of the torrent the more impossible and difficult to change its current, yet we must not despair or relax our efforts in the good cause; however agriculture may have been sorely punished, it is to be hoped that it is not devoted. My confidence is in the spirit of this *age of movement*, and when we see States and Empires, arts and sciences, customs and manners, laws, and governments feeling and acknowledging this inevitable principle of vicissitude and change, it is to be hoped that agriculture alone is not to remain unchanged and unchangeable. Nor will the change be confined to agriculture. All the mechanic arts are asserting their rightful claims under the influence of that public opinion which is destined to govern the whole world—and every profession and calling will soon be doomed to acknowledge the influence of practical science and mechanical power. Mr. President, it has been said that the man who could make two blades of grass grow where only one grew before, was one of the greatest benefactors of his species! And shall not those who can introduce a new plant, or eradicate a destructive weed; who can teach us to improve our domestic animals or guard us against the ravages of destructive insects; who has invented a new plow, or instrument of husbandry, or determined even an improved angle to the mould board, be equally regarded as benefactors of their country, and entitled to its gratitude? Why, sir, the memories of such men will be cherished and go down to posterity, when the names of warriors and heroes, statesmen and politicians, will be buried in eternal oblivion! In this great battle of public opinion, agriculture, I trust, will be found in its proper place; floating its flag the highest, and its crew the boldest, to grapple with those events which seem to be hurrying us on with an accelerated progress, which no human sagacity can foresee. And then again I would inquire, has Pennsylvania no forests yet remaining to subdue; no swamps to drain; no tracts of waste and unproductive lands capable of improvement, and wanting nothing but the plow, the hoe and the hod, to make them productive and fruitful fields?

Has she no lands not under culture, but abandoned as barren and desolate, and rarely now trodden by the foot of man or beasts, that might not again be brought into successful cultivation?

Are there no deserted habitations falling into ruin, no depopulation, no separation from friends and connections, no erratic emigrants in search of new homes, new places for their herds, new fields to skin and exhaust as fast as ruinous cultivation can accomplish the work?

Has she no railroads, turnpikes or bridges to erect for facilitating further the internal and external commerce of such a State?

If, sir, you feel any delicacy upon this subject, let me appeal to every intelligent and candid yeoman of your State to answer these inquiries, and say whether the agricultural condition of Pennsylvania is what it ought to be!

And if it be so, as I fear it may be, do the people of this time-honored Commonwealth require to be convinced that means exist, and in abundance, by which these evils may be arrested, their population and power retained, their lands restored, and rendered more productive, and the comforts of life increased; and that these means are within the reach of the great body of the cultivators of her soil? And here allow me, before I pass from this branch of the subject, to make one or two suggestions upon the subject of emigration, to which I have just alluded, and which ought to be regarded as one of vital importance to the old States, and to none more so than to Pennsylvania and Virginia.

Every hour of every day, we witness portions of our population abandoning their homes, and friends, for the terrestrial Paradise of the emigrant of the far West. This is an evil of a fearful character, and should be arrested, and all must see that this can only be done by restoring the lands of the Atlantic States to a higher state of fertility, and by improved and scientific cultivation.

Of the prospects and progress of our Western brethren I need say nothing here. Their destiny is fixed, and they are marching on to fulfil it with rapid strides, and richly do they deserve success. Indeed, every path of human enterprise and improvement has been explored by these wonderful people, with an energy, foresight, and industry worthy of the epoch, and of the admiration of the whole world; and no one rejoices at it more than I do. But, Mr. President, we must not consent to sacrifice ourselves, and these mothers of States, to add to the strength and power of this new country, covered with flourishing cities and towns, and filled with millions of the most industrious and thriving population.

If we have not the fertility of their lands, their boundless plains, and their trackless forests; and their magnificent verdure, have we not our own advantages?

Have we not bold and noble rivers, delightful climates, and the more valuable productions of southern suns? And then are there not other and stronger considerations than those which operate on the emigrant to bind us to our homes and native land? Are there not ties dearer to the heart than even gold or rich lands? Is it not the land of our birth—the homes of our childhood—the habitations of our fathers for past generations? Are we not in the midst of the monuments and graves of our revolutionary sages and patriots?

Why, Mr. President, is this sacred relic of our past history [here Mr. Stevenson turned and put his hand upon the Speaker's chair], this chair, so long preserved with such zealous vigilance, which was occupied by John Hancock when he signed the declaration of independence, and removed from the old immortal State House in Philadelphia to this splendid hall, so dear to the hearts of Pennsylvanians, and may I not add, of every American? The answer is to be found in that principle of association which compels us to look with interest upon the relics and memories connected with great events or names of renown, and which having come down to us from our fathers, will descend to future generations, increasing in interest as they increase in years! And are these monuments and memorials of past times, which appeal to the best emotions of the human heart to avail nothing? Are these hallowed sympathies of tenderness and veneration for our homes and country to be so easily broken, and when broken, forever? The remedy is in our hands, and we shall be false to ourselves and our children if we fail to avail ourselves of it. That remedy, I must again repeat, is in restoring our lands to fertility, and in elevating the agricultural classes—in scientific and high farming. And here, Mr. President,

let me say that Pennsylvania has other and most important interests, besides her agriculture, to urge her on in the course of improvement and enterprise, and these are to be found in her vast mineral resources, and especially in her mines of coal and iron. Indeed the possession of such immense fields of coal within a reasonable distance of the sea-board, may be regarded as a boon of inestimable value, and the main source to which she must now look to elevate her to superiority as a commercial and manufacturing State.

As late as 1846, one of her representatives in Congress is reported to have said, that only fifty years before, coal was unknown in the country; and that it then gave employment to four millions of days work annually. That it kept in movement a thousand ships of one hundred tons each; and afforded a nursery for the training of six thousand seamen, who earned three millions of dollars yearly! That it gave circulation to a capital of fifty million of dollars! Kept in activity fifty thousand miners, and sustained a mining population of fifty thousand souls, who annually consumed upwards of two millions worth of agricultural products, and more than three and a half millions of dollars worth of merchandize! What has been the increase since '46, we can now only conjecture! What a field is open here, Mr. President, for enterprise, in such a State as Pennsylvania, in all the branches of national industry and wealth! Why these *black diamonds* of her's alone, will prove of far more value than all the gold of California, or the mines of Mexico. Is it not calculated to baffle all speculation as to the point it is yet to elevate her? And yet, would it not be passing strange that at such a time as this, when skill, and zeal, and industry are pushing on all the other arts of civilized life to their utmost state of perfection, that art which fills the purse and sustains the sword of the nation—the art by which, under God, we live and move and have our being, should be the only one neglected and despised in a country like ours? Most sincerely do I wish that I had the power of that victorious language, which could carry deep and solid conviction upon this subject to the minds and hearts of every cultivator of the soil, not only in your noble and patriotic State, but into every hole and corner of this vast confederacy!

Having in the earlier part of this address, referred to the state of English and Scotch agriculture, and given estimates to show their increased productiveness from improved and scientific cultivation alone; let me now, Mr. President, add one or two examples from some of the smaller States of the Old World, as to the wonderful results that have been wrought by improving and fertilizing poor soils, and I select from States whose agriculture has probably not received the attention and consideration it merits. I allude to Ireland and Belgium! And first as to Ireland!—She, with a territory not more than half as large as that of Pennsylvania or Virginia, certainly not of New York, supports not only a population of more than nine millions, but exports upwards of fifty millions worth of products! And when we pass over to Belgium, a comparatively small principality, we find her sustaining an agricultural population of more than three hundred and thirty to the square mile. Now Pennsylvania and Virginia, with a population equally dense, could each sustain a population of more than twenty millions, by just the same system of farming and improved cultivation! M'Culloch, in his great statistical work, in alluding to the agriculture of Belgium, remarks:—"That her soil, artificially enriched, produces more than double the quantity of wheat required for the consumption of its inhabitants, amounting annually to more than sixteen million of bushels."

Now these statements, striking and marvellous as they appear, are no doubt true, and then the inquiry follows:—How is it all produced? The answer is, by improved and scientific cultivation, but especially in the making and keeping of manures, and in the wise and judicious application of them! Well may these be regarded as startling results and calculated to carry conviction and confidence to every candid and unprejudiced mind. And if such are the results and rewards of highly improved modern husbandry in the Old World, let us see what are the losses sustained in this new one of ours, from a totally different system of farming and cultivating our lands, and no where will the contrast be more applicable, than to our own States

Pennsylvania and Virginia, and some others which I need not name. In doing is, however, I shall need official and statistical data, and in the absence of legal provisions in Pennsylvania for procuring such statistical information, I must resort to me other States that can furnish it. For this purpose I shall select New York as example, to show the probable and estimated loss that is annually sustained from the impoverishment of soils and the want of more improved cultivation. And her se will be entirely applicable as well to Pennsylvania as to most of the other old ates. The census of 1840 will be the basis of the calculation I am about to submit, and for it I am indebted to one of the official reports of the Patent Office, a blication, by the by, of great value, and containing a fund of the most interesting formation upon all branches of national industry. Now, according to this state-ent, it appears that New York has TWELVE MILLIONS of acres of IMPROVED LAND, ultivated by five hundred thousand laborers, being an average of twenty-four or twenty-five acres to each laborer. Of these twelve millions ONE MILLION is so culti-ated as to become richer each succeeding year. It is in the hands of some forty ousand cultivators who are skillful farmers, who take and read agricultural jour-als and papers, and nobly sustain, not only a great State society, but the numerous auxiliary societies scattered through that great Commonwealth—Empire, rather, let e call it!

Three millions more of the twelve are so managed as barely to hold their own in int of fertility! They belong to a class of farmers who, we are told, do as well they can from personal observation, and seeing how the reading and more skillful tivitators of the one million class improve their estates and domestic animals.

The remaining eight millions of acres of the twelve, are in the hands of about three hundred thousand persons who still adhere to the "good old way" of their thers, in farming or rather skinning the land and extracting from the virgin soil all will yield, and returning to it little or nothing in aid of the productive powers of e land.

Now, what proportion, and in what degree of these three classes Pennsylvania and irginia can claim, neither you, sir, nor I will venture an opinion, but if it was put a jury of enlightened and good farmers to decide, I fear there would be a great edominance found in favor of the third class, whom, I need not say, seem to belong the "unscientificks," and that aforesaid family of the "good enoughs." And, in hat ratio, Mr. President, do you suppose these farms in New York have deteriorated in half a century? Why, the fact is hardly to be credited, that less than venty years ago they yielded in wheat from twenty to thirty bushels, and now only om five to eight!

From a treatise on "American Husbandry," published at the close of the revolu-
on, the following statement is made:—"That many parts of New York yield a
rger produce in wheat than is common to England. Upon good lands about Albany,
here the climate is the coldest in the country, they sow two bushels and better to
acre, and reap twenty to forty; the latter quantity, however, is not often had, but
venty to thirty are common, and that with such bad industry as would not yield
e like in England, and much less in Scotland. This is owing to the richness and
rtility of the lands."

And now let us see what is the present yield of the same lands, according to the ate census of New York of 1845. From this it appears that the county of Albany roduces only $7\frac{1}{2}$ bushels to the acre, although its farms are on tide-water, and near e capital of the State, with a good home market, and with every facility for pro-
ucing the most valuable fertilizers. *Dutchess county*, also on the Hudson, yields
an average of only 5 bushels, *Columbia* 6 bushels, *Rensselaer* 8, and *West Chester* 7.

To renovate these eight millions of acres would cost a hundred millions of dollars, and the aggregate loss to New York and the world is estimated at upwards of seven illions of dollars annually! And this state of things, *ceteris paribus*, is as appli-
able to Pennsylvania and Virginia, and the south, as to New York. And then comes the question, what escape is there from all this, but to improve and enrich the nds by high cultivation, or abandon them and emigrate?—to educate and elevate

the agricultural classes! And yet New York, with all her wealth and enterprise and all her efforts to render her agriculture profitable, has done nothing towards system of *general agricultural education*! With her numerous societies and associations, she is yet without an *agricultural school* on a scale worthy of her wealth and enterprise. Nor is there one, it is believed, in the United States! How long it will be before this reproach will be wiped out, it must be for New York or Pennsylvania to answer! We, of the Old Dominion, Mr. President, can no longer, I fear, hope to lead, but must be content to learn, and follow, at least, a while longer. rejoice, however, in believing that she too is raising up, and fast yielding to the spirit of progress and improvement that marks the age! We see this exemplified in her improving agriculture, in the increasing number of her railroads, canals, turnpikes, and bridges, and the increasing facilities for internal and external communication. The value of her lands, according to the report of her chief magistrate, has increased nearly thirty per cent. in her entire landed property, and many portions of the State, which, twenty years ago, were barely inhabited, are now filling up with an industrious population, and well cultivated. The fire horse is busily at work in Virginia, traversing every part of her dominion, and his whistle, it is to be hoped, will not only rouse up the "deer and eagle of her mountains," but her hardy and gallant sons from that lethargy and "glorious inactivity" which has so long kept this old Commonwealth in the back ground of improvement, and paralyzed those energies and resources which were more than sufficient long since to have placed her in the front rank of national improvement and greatness! But her destiny is onward and God speed her success. And then again we have another stumbling block to all agricultural improvement, which is probably to be met with in Pennsylvania to an extent quite as great as in some others of her oldest sisters, and that is in deep-rooted attachment to the old modes of cultivation, and in old habits and prejudices descending from father to son, always the most powerful enemy of all new systems of improvements, and in a great measure, I regret to say, confined to cultivators of the soil. I need not tell you, Mr. President, nor this enlightened audience, how slowly and reluctantly they are yielded by even the most intelligent and candid. Hence it is that from generation to generation men pass in the track of their predecessors, and to conquer this propensity, and the evils which flow from it, is the effort and one of the best results of modern science connected with agricultural improvement. In vain may the tongue or the press be employed to satisfy the practical and unscientific farmer of errors and habits which a life of labor and toil may have confirmed! He is either deaf or blind to such appeals! He laughs at all book learning, and sticks to the good old ways which have come down from some of his great grandfathers! There is but one remedy, and that is to make the experiment, explain the method, and exhibit the successful result, and then he may yield and follow the footsteps of successful experiment. But even then, as I have before said, more reluctantly. [Here Mr. Stevenson related one or two very striking and amusing anecdotes, both in relation to England and America, to show the force and folly of this inveteracy of habit among farmers, and the prejudices which sometimes exist between the two countries as to their modes of farming, living, &c.]

Nor is this all that the agriculturalists have to bear, as a class; they are often not only under-rated, but supposed not to stand upon the same platform in public estimation, with the learned and liberal professions. Now, Mr. President, this is a matter which I regard as vastly more important than is generally supposed, and another of the evils to an improved state of agriculture. Will you pardon me for a moment while I say a few words upon the agricultural classes in a country like this, and the nature of their calling. And if it be true that labor, occupation, difficulties to be overcome, obstructions to overcome, and the balancing between hopes and fears, constitute the true elements of man's nature, where so much as in the cultivation of the earth to be found the foodful nurse of earthly happiness? Where can man indulge his love for nature, or render greater benefits to his fellow-men, undisturbed by envy or prejudice, or the vanities of the world, than in the retirement of the country, and seeking the bread of industry by the sweat of his brow in cultivating the soil? An

is it true that agriculture has fallen from its high estate to one of a low and grovelling character? Never had it a right to stand higher, even in the palmiest days of Roman greatness! And do they, Mr. President, who now attempt to disparage it, remember what it then was? If they will look into the civil institutions of Rome, when she was mistress of the world, they will see how deeply it entered into her policy, not only to promote, but to dignify agriculture and its professors. Why, Pliny tells us, "that then the earth took pleasure in being cultivated by the hands of men crowned with laurels and decorated with the highest honors." And Cicero declares "that nothing in the world was more useful, more agreeable, or more worthy of free-men, than agriculture," and in saying so, he pronounced not his own opinion only, but the public judgment of his age and country. If troops were to be raised for the defence of the republic, where, but in the *tribus rusticus* were the nurseries of the legions? Did the emergencies of the State require a general or dictator, where was he sought—in the schools or the forum? No, sir. No, he was taken from the plow. Were their services to be rewarded, and, if so, with gold, or medals, or high office? Not at all. It was done by donations of land, and the quantity just so much as a man could plow himself in one day, a compensation which, bye the bye. I fear, in our days of prosperity and greatness, Mr. President, would not be esteemed by our warriors a very liberal compensation.

Agriculture a degraded occupation! Why, I blush whilst I repeat it! What is there, let me ask, in human duties, what in science or art, what in morals, philosophy, or religion, that may not be found amongst the cultivators of the soil in as great a degree as in any other calling on earth? What occupation more full of dignity, duties more full of joy, than those of the husbandman, in all that invests man with simplicity, practical sense, and enlightened benevolence, and with all that is lovely, valuable, or disinterested in woman? When was it that man ever rose from a state of servitude and dependence to ownership of land, that he did not learn self-respect, and become more elevated in his own esteem. Then it is, that breathing no low or abject spirit, he reaps from the soil the harvest of virtue, the sobriety of the father, the economy of the mother, the devoted labor of the son, the chastity of the daughter. These, these, Mr. President, are the fruits of glorious agriculture, and this is the answer to all who decry it! To the little minds, in other countries, who regard the pursuits of the husbandman as ignoble (and there are such), we have abundant vengeance for our contempt, when we recollect the homage paid to it in every stage of the world by the colossal abilities of their day! When it is assailed in America we have but one answer to give, and that is, that the plow can never be regarded as an ignoble instrument, which was guided by the hand of Washington? The one—the first—the last—the best! And now I come, lastly, to the enquiry, shall this state of things, which now exist, be suffered longer to do so? Shall the spirit of improvement that has totally changed the agriculture and the condition of the greatest portion of the old world, and so much of the new, be banished from the good old States of the Union? If not, what is the remedy to be applied? I answer fearlessly, an improved and enlightened system of cultivation, agricultural education, and legislative aid! These are necessary, and must be had. Soils must be analyzed, and for this agricultural chemists are needed. Agricultural implements must be improved, and for these agricultural societies, liberally endowed, will be able to furnish models of improvements and machinery. The plow must be driven deeper into the soil! Lime and plaster and fertilizing manure must be made to stimulate the sleeping energies of soils newly turned up to the fertilizing dews of Heaven! Clover and other improving crops must restore to exhausted soils the vegetable matter so indispensable to fertility! Farmers must be invoked to push their enquiries to the extent of their capacity, and their experiments as far as prudent economy will permit it, and to make no other use of the good old way than to adhere to it until a better is pointed out! Every State should have a State society, such as yours, with ample means of carrying out its meritorious objects! This must be the foundation stone of all agricultural improvements upon a large and liberal scale! Nothing can be done without it!

And here I will say that one great advantage, if none other, which would grow

out of the meetings of such associations properly organized, and endowed by the State, would bring together, in one great social body, most of the leading and efficient friends of agriculture from all parts of the State at some central point. Their views would be similar, their objects would accord, and their meetings would be friendly and social. They would come together, as you have done, animated by a kindred spirit, and devoted to kindred pursuits; act in concert, and part with the kindest feelings. Could anything but unmixed good come out of such associations? Political and party spirit would be banished, and no interest would claim attention but such as gentlemen and Christians would conscientiously support. Such meetings would serve to bind together the people in the different portions of such States as Pennsylvania and Virginia, and would be useful, if they did not even give such an impulse to agriculture as I have attempted to prove, and most strongly believe.

What scene more dignified or delightful than to see, as we have done here, hundreds and thousands of happy, intelligent, and independent farmers collected from all parts of the State, not to engage in political and party strife, but met together for their country's good, consulting how best to promote the great interests of agriculture; with no jarring elements, no heart-burnings of any sort, but peace and good will and benevolence animating every bosom. And then the various county and auxiliary societies would send their delegates, and combine in one body, upon every anniversary of the State society, an immense mass of intelligence collected from all parts of each State, bringing into social and profitable intercourse those who would otherwise remain strangers to each other, and would thus collect a mass of information, not only upon farming, but other great interests of the State.

And as the occupation of the plow is of no party, as the times are those of temperance (and I omitted to put this along with the other improvements of the age), as farmers are characterized by the love of order, and their calling the foundation upon which rests the welfare and happiness of all, there can be no danger of any sort apprehended from these gatherings, but they will come and pass off as the jubilees of farmers always do, in the greatest order and decorum, and in a friendly and benevolent spirit. Would not such scenes be well calculated, Mr. President, to gladden the heart of every wise and good man? If there be one who doubts it, I only wish he could have been present at the exhibition in Baltimore during the last week, or been for the last three days here.

Nor will the benefits to agriculture be the only effect of all I have been endeavoring to impress upon our agricultural friends. When regarded in a political point of view, and connected with the prosperity and permanency of our free institutions, what strong inducements we have, not only to uphold and maintain the rights and power of these glorious old States, to whom we are indebted not only for the blessings of our liberty, constitution, and Union, but to whom we are to look in the hour of peril for their preservation and perpetuity. For let no man deceive himself in the belief that they can ever be preserved in any other manner than in that spirit of compromise and mutual affection in which they were founded by our fathers. To the federal government must be yielded the exclusive and energetic exercise of all external and national powers secured to it by the constitution. To the State governments must be secured the mass of powers which relates to the internal and domestic affairs of the confederacy.

The rights secured to the States and the people must be preserved inviolable upon the basis of the constitution, then will our glorious Union, in the language of the Father of his Country, "become the main pillar in the edifice of our real independence; of tranquility at home and peace abroad; of our safety and prosperity, and of that liberty which we prize so much." Then, and then only, Mr. President, will our Union become immortal.

These are some of the views which I have felt it my duty to present on this occasion, and which I only regret are not worthy of the cause, and the consideration and favor with which they have been received by you and this distinguished assembly. One more word, and I shall have done. If, Mr. President, we are to succeed in the scheme in which we are engaged, of restoring and improving the lands and agricul-

ure of our respective States, we must be not only zealous and untiring, but united as a class. We must trust in the integrity of our cause, and in the intelligence and enterprise of our people.

And if it be true that the price of liberty is eternal vigilance, not less so is it as to successful agriculture. You, sir, and those who are in high places, must become the warders upon the wall to rouse up and warn farmers of the true state and condition of things, and of the dangers that beset them, and point out the means of escape from the breakers upon which our agricultural ship has been of late years too rapidly driving; and then, if they heed not the warning, but are determined to perish, their blood will not be required of the watchman! For one, however, I have no fear of the result, if we are true to ourselves. And why shall we not succeed? Why sit down in despair? Our cause is not the cause of the great and wealthy of any particular system of polities, or of any party, but the cause of the country? Let us then persevere, and should we triumph, as I feel confident we shall, then will a new era open upon these old and venerated, and beloved Commonwealths, which, in spite of every difficulty, will carry them through a long course of liberty and honor to the farthest goals of wealth, prosperity, and happiness.

